INLAND EMPIRE ENVIRONMENTAL SERVICES
7291 Ashley Avenue
Colton, California 92324
(909) 872-0501 FAX (909) 824-1442

RESULTS OF THE SECOND PHASE OF GROUNDWATER MONITORING CONDUCTED AT THE CROWN CITY PLATING COMPANY 4350 TEMPLE CITY BLVD. EL MONTE, CALIFORNIA

PREPARED FOR

Mr. Lawrence P. Donovan III
CROWN CITY PLATING COMPANY
4350 Temple City Blvd.
El Monte, California 91731

SUBMITTED TO :

California Regional Water Quality
Control Board - Los Angeles Region
101 Centre Plaza Drive
Monterey Park, California 91754-2156
Attn: Mr. Solomon

PREPARED BY :

INLAND EMPIRE ENVIRONMENTAL SERVICES
7291 Ashley Ave.
Colton, Ca. 92324

February 21, 1994

SB\CROWNWM1.RPT

INTRODUCTION

We are pleased to present this second phase of the groundwater monitoring and water sampling of three wells at the Crown City Plating Facility. The California Regional Water Quality Control Board - Los Angeles Region is requiring that groundwater monitoring wells be sampled approximately every three months.

FIELD PROCEDURES

Water samples from three monitoring wells, E-1, E-2, and E-3, were taken. Well E-1 is located near the south central edge of the property. Well E-2 is located adjacent to the storm water drainage ditch which runs along the eastern edge of the property and approximately fifty feet from the southern edge of the property. Well E-3 is located between the Mold Shop and the Rack Department. These shops are located near the northern edge of the property and on an additional parcel of the property which extends toward the east. The wells are located approximately on the plot plan (see Appendix A) but no actual land survey was conducted by IEES during this initial water sampling.

Initial measurements of the depth of water and total depths of the cased wells were made prior to purging. Purging was accomplished using disposable teflon bailers. One bailer was dedicated to each well to eliminate cross contamination. The temperature, conductivity, and pH were monitored during purging and these results are enclosed as an appendix. Purge water was stored on site in plastic barrels supplied by Crown City Plating and disposed in their waste water treatment system.

Water samples were recovered using a teflon bailer equipped with a teflon stop cock in its base. Two water samples were transferred to an EPA approved 40 ml VOC bottle via the teflon stop cock. The bottles were then sealed, inverted to check for any possible air bubbles, labeled, and placed on ice for transport to an Environmental Testing Laboratory.

Chemical analysis of the water samples was conducted using EPA method 502.2 for drinking water to determine the type and amounts of any contamination that may be present in the wells. EPA method 180.1 was used for turbidity measurements.

The total depth of the wells and depth to groundwater were measured in each well prior to purging. Silt and mud were encountered at the bottom of each well. Therefore, the measurement of the bottom of the well may not be representative of the actual total depth. The initial measurements obtained were:

WELL	WELL DEPTH	WATER DEPTH
E-1	92.3	78.9'
E-2	105.47'	79.6'
E-3	102.20'	80.62'

The wells were purged by hand using disposable bailers attached to new cotton commercial cloth line. The wells were bailed until the monitoring parameters stabilized. These tests were conducted after every fifth bailer or between each 2.5 gallons of water that had been purged from each well. Water samples were taken for laboratory analysis only after these parameters had stabilized.

Silts and fines were noted in all of the groundwater wells while sampling. Approximately one quart of water was recovered from each well and submitted for turbidity analysis.

LABORATORY ANALYSIS

Water samples obtained in the field were transported to a State Certified Hazardous Waste Testing Laboratory. An EPA type Chain of Custody form was used to record the route of custody of the samples. Instructions were given on the Chain-of-Custody form to analyze the water samples using EPA Method 502.2 for drinking water and EPA method 180.1 for turbidity (see Appendix B). However, the laboratory made the desidion to analyze the samples using EPA Method 8240.

All three of the groundwater monitoring wells showed some degree of contamination with Halogenated Volatile Organic compounds and high amounts of suspended material.

Well E-1 had a turbidity index of 2700 NTU using EPA method 180.1 with a detection limit of 1 NTU. Five chlorinated compounds were detected. These compounds are presented as TABLE I.

TABLE I

COMPOUND	AMOUNT	DETECTION LIMIT
Chloroform	6.5 µg/L	2.0 µg/L
1,1-Dichloroethene	18 µg/L	5.0 µg/L
Tetrachloroethene	180 µg/L	2.0 µg/L
Trichloroethene	130 µg/L	2.0 µg/L
Methylene Chloride	99 µg/L	10.0 µg/L
1,1,1 Trichloroethane	33 µg/L	2.0 µg/L

Well E-2 had a turbidity index of 60 NTU using EPA method 180.1. Eight chlorinated compounds were detected in this well. These compounds are presented as TABLE II.

TABLE I

COMPOUND	AMOUNT	DETECTION LIMIT
Trichloroethene	508 µg/L	2.0 µg/L

Well E-3 had a turbidity index of 110 NTU. Five chlorinated compounds were detected in this well. These are presented as TABLE III.

TABLE III

COMPOUND	AMOUNT	DETECTION LIMIT
Tetrachloroethene	14.0 µg/L	2.0 µg/L
Trichloroethene	370 µg/L	2.0 µg/L

CONCLUSION

The three groundwater monitoring wells have indications of four primary chlorinated compounds: Trichloroethene, Tetrachloroethene, 1,1,1-Trichloroethane, and 1,1-Dichloroethene. There was an insignificant finding of other chlorinated compounds at or near the detection limit of the analytical method. All three of the monitoring wells have silted up to varying degrees. It is to soon to speculate upon any pattern or trend demonstrated by the change in the components of the three wells between the first and second samples.

The work performed during this Phase of the groundwater monitoring was completed in accordance with the professional practices and standards currently accepted in the Geotechnical / Environmental consulting industry and the Regional Water Quality Control Board - Los Angeles Region.

Sincerely Yours,

_____

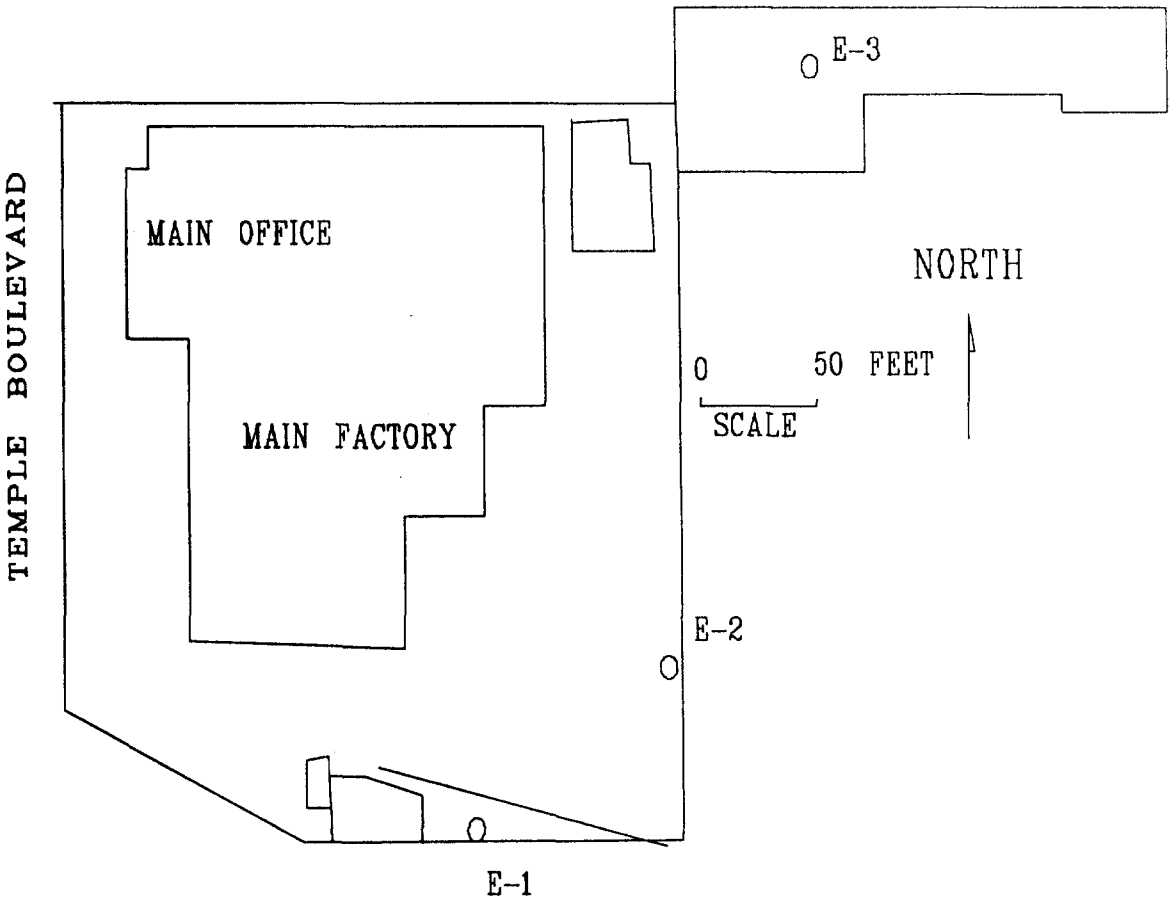
Lawrence P. Pearce
Owner - Inland Empire Environmental Services

APPENDIX A
PLOT PLAN AND WELL SAMPLING DATA

INLAND EMPIRE ENVIRONMENTAL SERVICES
7291 Ashley Avenue
Colton, California 92324
(909) 872-0501 FAX (909) 824-1442

CROWN CITY PLATING PLOT PLAN

SHOWING APPROXIMATE LOCATION OF MONITORING WELLS



WELL E-1

AMOUNT PURGED IN GAL.	COND. X 100	TEMPERATURE	pH
2.5	8.47	63.2	7.76
5	8.62	63.8	7.73
7.5	8.25	63.4	7.68
10	8.53	62.9	7.67
12.5	8.45	62.6	7.69
15	8.45	62.5	7.70
17.5	8.45	62.5	7.69
20	8.45	62.6	7.69

WELL E-2

AMOUNT PURGED IN GAL.	COND. X 100	TEMPERATURE	pH
2.5	6.50	67.0	7.96
5.0	6.43	64.6	7.89
7.5	6.42	63.6	7.8.5
10	6.49	64.1	7.81
12.5	6.63	64.3	7.92
15	6.65	63.9	7.99
17.5	6.64	63.1	7.93
20	6.67	64.0	7.93
22.5	6.67	63.9	7.93
25	6.67	64.0	7.93
27.5	6.67	64.0	7.92
30	6.67	64.0	7.92

WELL E-3

AMOUNT PURGED IN GAL.	COND. X 100	TEMPERATURE	pH
2.5	2.36	70.6	9.37
5	2.1	66.6	9.12
7.5	2.77	67.3	9.2
10	3.19	67.8	8.85
12.5	3.54	66.9	8.63
15	3.61	64.0	8.42
17.5	3.94	64.8	8.28
20	4.05	66.7	8.25
22.5	4.10	66.8	8.25
25	4.05	66.6	8.20
27.5	4.05	66.8	8.20
30	4.05	66.8	8.20

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APPENDIX B
LABORATORY TEST RESULTS

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Analytical Testing Report Summary

Client:	**IEES**	**Date Sampled:**	**2/18/94**
Project:	**Crown City Plating**	**Date Received:**	**2/19/94**
Matrix:	**Water**	**Date Analyzed:**	**2/28/94**
Project ID:	**94-015**	**Date Reported:**	**3/3/94**

Test Method	Analyte	Sample ID	Lab ID	Result	Reporting Limit	Units
8240*	Acetone	E-1	94-0065	ND	10.0	ug/L
	Benzene			ND	2.0	ug/L
	Bromodichloromethane			ND	2.0	ug/L
	Bromoform			ND	2.0	ug/L
	Bromomethane			ND	5.0	ug/L
	2-Butanone			ND	10.0	ug/L
	Carbon Disulfide			ND	5.0	ug/L
	Carbon Tetrachloride			ND	5.0	ug/L
	Chlorobenzene			ND	2.0	ug/L
	Chlorodibromomethane			ND	2.0	ug/L
	Chloroethane			ND	5.0	ug/L
	2-Chloroethylvinyl Ether			ND	2.0	ug/L
	Chloroform			6.5	2.0	ug/L
	Chloromethane			ND	5.0	ug/L
	1,1-Dichloroethane			ND	2.0	ug/L
	1,2-Dichloroethane			ND	2.0	ug/L
	1,1-Dichloroethene			18	5.0	ug/L
	cis-1,2-Dichloroethene			ND	2.0	ug/L
	trans-1,2-Dichloroethene			ND	2.0	ug/L
	1,2-Dichloropropane			ND	2.0	ug/L
	cis-1,3-Dichloropropene			ND	2.0	ug/L
	trans-1,3-Dichloropropene			ND	2.0	ug/L
	Ethylbenzene			ND	2.0	ug/L
	2-Hexanone			ND	10.0	ug/L
	Methylene Chloride			99	10.0	ug/L
	4-Methyl-2-Pentanone			ND	5.0	ug/L
	Styrene			ND	2.0	ug/L
	1,1,2,2-Tetrachloroethane			ND	2.0	ug/L
	Tetrachloroethene			180	2.0	ug/L
	Toluene			ND	2.0	ug/L
	1,1,1-Trichloroethane			33	2.0	ug/L
	1,1,2-Trichloroethane			ND	2.0	ug/L
	Trichloroethene			130	2.0	ug/L
	Trichlorofluoromethane			ND	5.0	ug/L
	Vinyl Acetate			ND	5.0	ug/L
	Vinyl Chloride			ND	5.0	ug/L
	Total Xylenes			ND	2.0	ug/L

E.A.R.T.H. Sciences and Analytical Technologies
237 S. Waterman Avenue, Suite B
San Bernardino, CA 92408
Tel: (909) 888-6544 FAX: (909) 885-7037

94-015
Project Name: Crown City Plating Date Sampled: 2/18/94

Test Method	Analyte	Sample ID	Lab ID	Result	Reporting Limit	Units
8240*	Acetone	E-2	94-0066	ND	10.0	ug/L
	Benzene			ND	2.0	ug/L
	Bromodichloromethane			ND	2.0	ug/L
	Bromoform			ND	2.0	ug/L
	Bromomethane			ND	5.0	ug/L
	2-Butanone			ND	10.0	ug/L
	Carbon Disulfide			ND	5.0	ug/L
	Carbon Tetrachloride			ND	5.0	ug/L
	Chlorobenzene			ND	2.0	ug/L
	Chlorodibromomethane			ND	2.0	ug/L
	Chloroethane			ND	5.0	ug/L
	2-Chloroethylvinyl Ether			ND	2.0	ug/L
	Chloroform			ND	2.0	ug/L
	Chloromethane			ND	5.0	ug/L
	1,1-Dichloroethane			ND	2.0	ug/L
	1,2-Dichloroethane			ND	2.0	ug/L
	1,1-Dichloroethene			ND	5.0	ug/L
	cis-1,2-Dichloroethene			ND	2.0	ug/L
	trans-1,2-Dichloroethene			ND	2.0	ug/L
	1,2-Dichloropropane			ND	2.0	ug/L
	cis-1,3-Dichloropropene			ND	2.0	ug/L
	trans-1,3-Dichloropropene			ND	2.0	ug/L
	Ethylbenzene			ND	2.0	ug/L
	2-Hexanone			ND	10.0	ug/L
	Methylene Chloride			ND	10.0	ug/L
	4-Methyl-2-Pentanone			ND	5.0	ug/L
	Styrene			ND	2.0	ug/L
	1,1,2,2-Tetrachloroethane			ND	2.0	ug/L
	Tetrachloroethene			ND	2.0	ug/L
	Toluene			ND	2.0	ug/L
	1,1,1-Trichloroethane			ND	2.0	ug/L
	1,1,2-Trichloroethane			ND	2.0	ug/L
	Trichloroethene			580	2.0	ug/L
	Trichlorofluoromethane			ND	5.0	ug/L
	Vinyl Acetate			ND	5.0	ug/L
	Vinyl Chloride			ND	5.0	ug/L
	Total Xylenes			ND	2.0	ug/L

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94-015
Project Name: Crown City Plating **Date Sampled:** 2/18/94

Test Method	Analyte	Sample ID	Lab ID	Result	Reporting Limit	Units
8240*	Acetone	E-3	94-0067	ND	10.0	ug/L
	Benzene			ND	2.0	ug/L
	Bromodichloromethane			ND	2.0	ug/L
	Bromoform			ND	2.0	ug/L
	Bromomethane			ND	5.0	ug/L
	2-Butanone			ND	10.0	ug/L
	Carbon Disulfide			ND	5.0	ug/L
	Carbon Tetrachloride			ND	5.0	ug/L
	Chlorobenzene			ND	2.0	ug/L
	Chlorodibromomethane			ND	2.0	ug/L
	Chloroethane			ND	5.0	ug/L
	2-Chloroethylvinyl Ether			ND	2.0	ug/L
	Chloroform			ND	2.0	ug/L
	Chloromethane			ND	5.0	ug/L
	1,1-Dichloroethane			ND	2.0	ug/L
	1,2-Dichloroethane			ND	2.0	ug/L
	1,1-Dichloroethene			ND	5.0	ug/L
	cis-1,2-Dichloroethene			ND	2.0	ug/L
	trans-1,2-Dichloroethene			ND	2.0	ug/L
	1,2-Dichloropropane			ND	2.0	ug/L
	cis-1,3-Dichloropropene			ND	2.0	ug/L
	trans-1,3-Dichloropropene			ND	2.0	ug/L
	Ethylbenzene			ND	2.0	ug/L
	2-Hexanone			ND	10.0	ug/L
	Methylene Chloride			ND	10.0	ug/L
	4-Methyl-2-Pentanone			ND	5.0	ug/L
	Styrene			ND	2.0	ug/L
	1,1,2,2-Tetrachloroethane			ND	2.0	ug/L
	Tetrachloroethene			14	2.0	ug/L
	Toluene			ND	2.0	ug/L
	1,1,1-Trichloroethane			ND	2.0	ug/L
	1,1,2-Trichloroethane			ND	2.0	ug/L
	Trichloroethene			370	2.0	ug/L
	Trichlorofluoromethane			ND	5.0	ug/L
	Vinyl Acetate			ND	5.0	ug/L
	Vinyl Chloride			ND	5.0	ug/L
	Total Xylenes			ND	2.0	ug/L

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94-015
Project Name: Crown City Plating **Date Sampled:** 2/18/94 **Page 4 of 4**

Test Method	Analyte	Sample ID	Lab ID	Result	Reporting Limit	Units
180.1*	Turbidity	E-1	94-0065	2,700	0.1	NTU
180.1*	Turbidity	E-2	94-0066	60	0.1	NTU
180.1*	Turbidity	E-3	94-0067	110	0.1	NTU

ND: not detected at specified reporting limit

*analysis performed by DHS #1169.

Clifton J. Kiser
Technical Director/Quality Assurance

March 3, 1994
Date

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ESAT Project ID #: 94-015

PAGE 1 OF 1

CHAIN OF CUSTODY RECORD

Sampling Date: 2-18-94	Client Name: IEES	Project Name/ID: CROWN CITY
Contractor: IEES	Street Address: 7291 ASHLEY AVE	Street Address:
Sampler: PEARCE	City, State, Zip Code: COLTON, CA 92324	City, State, Zip Code:
FAX/Send Results To:	Send Invoice To (if different from above):	
Telephone #:		
FAX #:		

Site Location	Sample ID	Time	Sample Matrix: Soil	Water	Air	Other	Sampling Method	Container Type	Volume	Preservative	502.2	TURBITY	Comments and Special Instructions:	ESAT Laboratory ID#:
E-1				X							X			94-0065
E-2				X							X			94-0066
E-3				X							X			94-0067
E-1												X		94-0065
E-2												X		94-0066
E-3												X		94-0067

Samples Chilled: Y N Samples Sealed: Y N

Method of Shipment: Courier ☐ Hand Carried ☐ Ground Shipped ☐

Turnaround Time: 24 Hours ☐ 48-72 Hours ☐ Regular (4-10 Days) ☐

Relinquished By (Signature):	Date/Time:	Relinquished By (Signature):	Date/Time:	Relinquished By (Signature):	Date/Time:
Laurence P. Pearce	2-19-94 12:10				
Received By (Signature):	**Date/Time:**	**Received By (Signature):**	**Date/Time:**	**Received for ESAT By (Signature):**	**Date/Time:**
					2/19/94 12:10